IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Patent Application No. 10/680,542

Confirmation No. 5000

Applicant: Mody et al.

Filed: October 7, 2003

TC/AU: 2178

Examiner: Samir Termanini

Docket No.: 224183 (Client Reference No. 03,201US)

Customer No.: 23460

APPELLANTS' APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In support of the appeal from the final rejection dated June 28, 2007, Appellants now submit their Brief.

Real Party In Interest

The patent application that is the subject of this appeal is assigned to Invensys Systems, Inc.

Related Appeals and Interferences

There are no appeals or interferences that are related to this appeal.

Status of Claims

Claims 1-18 stand finally rejected, and these rejections are presently being appealed.

A complete listing of these claims appears in the Claims Appendix.

Status of Amendments

There were no amendments submitted after the final rejection.

Summary of Claimed Subject Matter

Claims 1-18 are pending. The summary of independent claim 1 and the separately argued dependent claims 5, 10 and 16 reference the specification and drawings filed with the application on October 7, 2003.

Appellants' claimed invention is directed to a tablet personal computer system and software that, in combination, facilitate performing a variety of industrial process design, supervisory and/or data management tasks. The tablet PC includes a human-machine interface (HMI) having an integrated touch sensitive display. A wireless communication resource is provided to facilitate communications between the tablet PC and other networked components (e.g., configuration databases, runtime process databases including live data and setpoint values, etc.). Furthermore, a set of one or more supervisory control application programs are present on the tablet PC.

Importantly, the recited application programs interact with a user via a set of tablet PC interface services (see, Common Services 220 of FIG. 2) associated with the human-machine interface. In the illustrative example, one or more of the interface services utilize one or more of a set of tablet PC hardware-related utilities (e.g., electronic pen) referred to as "Tablet Extensions 210." For example, the electronic pen of the extensions 210 is utilized by an Annotation service of the Common Services 220 that is exploited by a visualization application program. Thus, the illustrative example of the claimed invention exploits tablet PC functionality through a set of "Common Services" in a *way* that is neither disclosed nor suggested by the prior art.

The invention, as illustrated by Appellants' examples in FIGs. 4 and 5, goes beyond merely executing a supervisory control application (e.g., InTouch) on a tablet PC. The invention includes supervisory control application programs that exploit, through a set of services ("Common Services" 220), the tablet PC's extended functional capabilities, such as an electronic pen, supported by "Tablet Extensions" 210.

Claim 1 is directed to a tablet personal computer system (see, tablet PCs 100 and page 6, lines18-21) and software (see, FIG. 2 and page 7, line 22 to page 8, line 30) facilitating performing a variety of design, supervisory and/or data management tasks associated with industrial processes. The tablet PC system includes a human-machine interface, including a touch-sensitive display region, integrated into a tablet personal computer. See, page 12, lines 13-23. The claimed tablet computer system also includes a wireless communication resource. See, page 6, lines 22-29. The table personal computer system software includes a set of one or more application programs relating to supervisory control of industrial processes. See, Applications 230 of FIG. 2, and page 8, lines 19-30.

Furthermore, in accordance with the invention recited in claim 1, the application programs interact with a user via a set of tablet PC interface services associated with the human-machine interface. See, e.g., Common services 220 in FIG. 2 and page 8, lines 8-18. Thus, in accordance with the presently claimed invention, a service approach is utilized that facilitates adapting the aforementioned industrial process applications to a tablet PC's extended HMI functionality. Appellants' claimed set of services provide a common interface by which the industrial process supervisory applications exploit the extended capabilities of the tablet PC hardware and tablet PC operating system.

Each of the separately argued dependent claims (**5, 10 and 16**) recite a unique "annotation" service that enables a user to capture a particular view on the tablet PC screen and thereafter annotate the captured view. See, Annotation service (of common services 220) at page 8, lines 12-14; and specific examples in FIGs. 4 and 5 described at page 12 line 1 to page 16, line 18. **Claim 16** specifically recites capturing real time information in a view. See, e.g., Annotation of Behavior 316 described at page 11, lines 18-23.

Grounds of Rejection to be reviewed on Appeal

The grounds of rejection to be reviewed on appeal are the grounds stated in the Final Office Action mailed on June 28, 2007. In particular, Appellants appeal:

1. The rejection of claims 1-18 as obvious under 35 U.S.C. §103(a) over Viewsonic (Publication A-CD-ViewPad 1000-1, 2001) in view of Wonderware's FactorySuite program as described in the FactorySuite InTouch User's Guide, June 2001 (InTouch).

Argument

Rejection of Claims 1-18 as obvious over Viewsonic in View of Wonderware's InTouch

Claims 1-4, 6-9, 13-15, 17 and 18

Appellants seek reversal of the rejection of presently pending **claim 1** as well as all of the claims depending from claim 1 (see, Claims 1-18 in the Claims Appendix attached hereto). As noted previously above in the Summary of the Claimed Subject Matter, Appellants' invention is directed to a tablet PC wherein a set of industrial process supervisory control applications interact with a user via a set of tablet PC interface services. In particular claimed embodiments, corresponding to claims 5, 10, and 16, one of the supported services is an annotation service that facilitates capturing and annotating a view presented on the display of a tablet PC running one of the industrial process supervisory control applications.

Tablet PC's, such as ViewSonic's ViewPad 1000, were indeed known at the time of the invention. Wonderware's InTouch® HMI application could run on such a system. However, the claimed invention goes beyond merely executing the supervisory control application programs on a tablet PC. The claimed invention recites that the application programs "interact with a user via a set of tablet PC interface services associated with the human-machine interface." The prior art version of InTouch® HMI application upon which the Office Action relies, while capable of running on a PC running Windows CE, did not interact with a user via a set of tablet PC interface services (e.g., electronic pen). In other words, the InTouch® HMI application operated on all devices as though the hardware platform was a stationary computer system. The "services" referenced at page 3 of the Final Office Action do not constitute the claimed set of services defined by Appellants with reference to a set of Common Services 220 depicted in FIG. 2 of their application. Combining ViewSonic's ViewPad 1000 with the prior art InTouch® HMI application would not render the claimed invention since the combination lacked the claimed "set of tablet PC interface services".

Furthermore, Appellants' claimed invention is directed to a particular *way* in which the enhanced functionality is carried out – through a set of *services*. Appellants' recited set of tablet PC interface services (corresponding to the Common Services 220 in the disclosure) are defined/distinguished from the tablet extensions (hardware drivers) 210 and the operating system of a tablet PC. Nowhere does the prior art disclose or suggest the claimed "set of tablet PC interface services." Thus, Appellants submit that the prior art neither discloses nor suggests at least the element of interaction between a user and a supervisory control application program via a set of tablet PC interface services. A *prima facie* case of obviousness requires finding each element in the combined disclosures of the prior art references. In view of the absence of the above-cited "set of table PC interface services" element, Appellants submit that the claimed invention is not obvious over the prior art.

Summary of the Teachings of the Cited Prior Art

The ViewSonic ViewPad discloses a tablet PC that was indeed known at the time of the invention. Furthermore, a prior art version of Wonderware's InTouch® HMI application was indeed known at the time of the invention and is an example of a supervisory control application program. Appellants furthermore agree that the prior art InTouch® program was capable of running on the Windows CE platform. However, Appellants do not agree with the Final Office Action's assertion that at the time of the invention Wonderware's InTouch® application included the disclosed/claimed "set of table PC interface services". In fact, as noted in the Background of the application, the InTouch® application generally operated on a stationary computer. The InTouch® application did not incorporate the claimed set of services that enabled exploitation of the extended HMI capabilities of tablet PCs.

Appellants' Remarks Concerning the Specific Grounds for the Rejection of Claim 1

Appellants traverse the rejection of claim 1 as obvious over ViewSonic's ViewPad 1000 in view of Wonderware's InTouch® HMI application. Appellants submit that the prior art neither discloses nor suggests at least the expressly recited element of interaction between a user and a supervisory control application program via a set of tablet PC interface services. A *prima facie* case of obviousness requires finding each element in the combined disclosures of the prior art references. Therefore, Appellants submit that the claimed invention is not obvious over the prior art.

The claimed invention goes beyond merely placing supervisory control applications on a tablet PC. The claims recite that the applications interact with a user via a "set of tablet PC interface services" associated with the human-machine interface including a touch-sensitive display region. The set of services corresponds, in the disclosed embodiment, to the "Common Services" that enable a user to exploit an "electronic pen" as well as other functionality supported by the tablet PC. Appellants' specification thereafter identifies particular examples in FIGs. 4 and 5 where the claimed invention is used in a new and unique way to enhance the functionality provided by supervisory control applications.

Appellants submit that the claimed "set of tablet PC interface services" is neither disclosed nor suggested by the referenced prior art. The InTouch® HMI application, prior to the present invention, was generally executed on permanent full-size monitoring stations. Though one could possibly load the prior art InTouch® application onto a Windows CE based system, the prior art InTouch® HMI application did not include the claimed "services" that would enable the InTouch® user to exploit the tablet PC user interface's electronic pen/stylus such as, for example, by annotating a view of an InTouch® application. See, FIGs. 4 and 5 of Appellants' application.

The desirability of the present invention arises from the new features supported by the tablet PC-enabled applications that are provided, by way of example, with reference to FIGs. 4 and 5 of the present application. The prior art InTouch® application did not include the features described by Appellants with reference to FIGs. 4 and 5, and thus the functionality of the prior art InTouch® application is not enhanced by modifying its code to support exploitation of tablet PC interface services such as those provided by the ViewSonic tablet PC. One skilled in the art at the time of the invention would not be motivated to modify InTouch in a way that would render the claimed invention. *It is the disclosed Common "services" (e.g., Annotation in FIG. 2) that provides the desirability to combine InTouch and the tablet PC. However, it is these claimed "services" that are absent from the teachings of the prior art.* Thus, Appellants respectfully submit that the combined teachings of ViewSonic's tablet PC and Appellant's own prior InTouch® application program would not render the claimed invention obvious.

Appellants' Remarks Regarding the Final Office Action's Responses (pp. 14-16)

Contrary to Section I, Appellants have not argued against the references individually. The prior art upon which the Final Office Action relies *does not disclose or suggest the claimed "set of services"*. In this particular case, the cited InTouch and ViewSonic prior art is actually combinable. However, as Appellants have repeatedly expressed, loading and executing the InTouch® application on the ViewSonic tablet PC would not render the claimed invention since the InTouch application did not incorporate/utilize the disclosed/claimed "set of services". The Final Office Action's response entitled "Arguments Against The References Individually" is inapplicable to the presently claimed invention.

Regarding Section II, the Final Office Action's construction of the "set of services" element is inconsistent with the Appellants' disclosure and clear intention (in view of concessions regarding the scope and content of the prior art). If the claimed "set of services" were construed to cover the previously existing InTouch® application, then Appellants would have no reason to pursue the presently claimed invention. Furthermore, Appellants disclosed a set of services (Common services 220) and used the term "services" in the specification to refer exclusively to the "Common services" throughout the specification. The Final Office Action's interpretation of the "set of services" element is inconsistent with the disclosure of the application.

An application's specification and drawings must be considered when determining a reasonable scope of recited elements of a claimed invention. However, the Final Office Action disregards Appellants' description of the invention in the specification and drawings when construing the recited "set of tablet PC interface services". The Final Office Action rejected each of the pending independent claims based upon an unreasonably liberal/skewed interpretation of the aforementioned claim element that is contrary to both the description of the claim elements in the specification and Appellants' admissions regarding the scope and content of the prior art when responding to the first Office Action. During prosecution of an application claims must be given a broadest *reasonable* interpretation. Appellants object to the current interpretation, by the Final Office Action, of the pending claims that skews the meaning of the claimed set of services element that has been defined by Appellants' disclosed embodiments. See, *Phillips v. AWH*

Corp., 75 USPQ2d 1321 (Fed. Cir. 2005). This decision of the Federal Circuit applies to both application prosecution and patent litigation contexts. As explained in *Phillips*, claims must be reasonably interpreted *in view of the specification*, which is highly relevant to claim construction analysis, and is the *single best guide to determining the meaning of terms.*

Regarding Section III, Appellants submit that the predictability of the result is not an issue in the present application. The prior art does not even disclose the claimed combination of elements recited in claim 1. The issue of combining the prior art is not in question. One would expect that InTouch® could run on a tablet PC. However, that combination does not correspond to Appellants' claimed invention.

Claims 5, 10-12, and 16

Claims 5, 10 and 16 each recite claim elements corresponding to the disclosed Annotation service of the set of Common Services. The teachings of ViewSonic and InTouch do not include the claimed Annotation functionality for capturing and annotating a view on a tablet PC's graphical interface. The prior art InTouch® HMI application was not designed to exploit tablet PC's in general and electronic pens specifically. Appellants again refer to their examples described with reference to FIGs. 4 and 5 and respectfully submit that these capabilities did not exist in the prior art version of InTouch®, and thus the inventions recited in each of the dependent claims 5, 10 and 16 are neither disclosed nor suggested by the combined teachings of the ViewSonic tablet PC and the prior art InTouch® application.

In summary, Appellants' recited invention is not obvious over the prior art. The recited invention goes beyond merely combining a prior art version of InTouch® with the ViewSonic tablet PC. Claim 1 recites a set of application programs relating to supervisory control of industrial processes which *interact with a user via a set of tablet PC interface services.* This recited element of Appellants' presently claimed invention is not taught or suggested in the combined teachings of the ViewSonic tablet PC and the InTouch® HMI application.

Conclusion

The present invention is not rendered obvious from the combined teachings of ViewSonic's ViewPad 1000 Tablet PC and Wonderware's FactorySuite InTouch User's Guide. For the reasons stated herein above, the presently pending claims are patentable over the prior art presently known to Appellants. Appellants therefore request reversal of the presently pending rejection of claims 1-18.

Respectfully submitted,

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Claims Appendix

1. (Original) A tablet personal computer system and software facilitating performing a variety of design, supervisory and/or data management tasks associated with industrial processes including:

a human-machine interface, including a touch-sensitive display region, integrated into a tablet personal computer;

a wireless communication resource; and

a set of one or more application programs relating to supervisory control of industrial processes, wherein the application programs interact with a user via a set of tablet PC interface services associated with the human-machine interface.

2. (Original) The tablet personal computer system of claim 1 wherein the human-machine interface includes an electronic pen user interface.

3. (Original) The tablet personal computer of claim 2 further comprising handwriting recognition software.

4. (Original) The tablet personal computer system of claim 2 further comprising a handwriting input recognition panel.

5. (Original) The tablet personal computer system of claim 2 further comprising an annotation functionality enabling capture and annotation, using the electronic pen user interface, of a view displayed on the tablet personal computer.

6. (Original) The tablet personal computer system of claim 1 wherein an application program supports collaborative design functionality that enables users to review, edit and annotate a proposed design for industrial process control.

7. (Original) The tablet personal computer system of claim 1 wherein the set of applications includes a production management application program supporting access to a set of databases.

8. (Original) The tablet personal computer system of claim 1 wherein the set of application programs includes application verification software for confirming proper design logic by setting values and observing statuses of controlled equipment.

9. (Original) The tablet personal computer system of claim 1 wherein the set of application programs includes application software enabling data entry for controlling a plant floor device.

10. (Original) The tablet personal computer system of claim 1 further comprising an integrated camera, and wherein the set of application programs includes application software supporting capturing an image and further annotating the captured image.

11. (Original) The tablet personal computer system of claim 10 wherein the camera is a still image camera.

12. (Original) The tablet personal computer system of claim 10 wherein the camera is a video camera.

13. (Original) The tablet personal computer system of claim 1 wherein the set of application programs includes application software for receiving data input for entry into a database.

14. (Original) The tablet personal computer system of claim 1 wherein the set of application programs includes application software facilitating offline data analysis.

15. (Original) The tablet personal computer system of claim 1 wherein the set of application programs includes application software facilitating online data analysis.

16. (Previously presented) The tablet personal computer system of claim 1 wherein the set of application programs includes application software incorporating a user interface for selectively capturing and annotating, via handwritten input, real time information.

17. (Original) The tablet personal computer system of claim 1 wherein the set of application programs includes application software for capturing end of shift snapshots.

18. (Original) The tablet personal computer system of claim 1 further including user authentication mechanisms.

Evidence Appendix

Not Applicable

Related Proceedings Appendix

Not Applicable